

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number  
**WO 2004/110758 A2**

(51) International Patent Classification<sup>7</sup>:

**B41C**

(21) International Application Number:

PCT/IL2004/000519

(22) International Filing Date: 16 June 2004 (16.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/479,157

18 June 2003 (18.06.2003) US

(71) Applicant (for all designated States except US): **VIM TECHNOLOGIES LTD.** [IL/IL]; Kibbutz Hanita, 22885 (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BIEBER, Avigdor** [IL/IL]; 59 Ahad Ha'am Street, 43210 Ra'anana (IL). **KARP, Michael K.** [IL/IL]; 5 Winberger, 49742 Petah Tikva (IL). **SAVION, Zeev** [IL/IL]; Kibbutz Hanita, 22885 (IL).

(74) Agents: **EITAN, PEARL, LATZER & COHEN-ZEDEK** et al.; 7 Shenkar Street, 2 Gav Yam Center, 7 Shenkar Street, P.O. Box 12688, 46725 Herzlia (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A PRINTING MEMBER HAVING A TRANSFERRED IMAGE AND A METHOD FOR FABRICATING IT

(57) Abstract: Lithographic printing members and a method and system for fabricating them is provided. The printing member may comprise a solid substrate, a top layer over the substrate, wherein the top layer comprises two types of surface areas, a first one and a second one. The two types of surface area are fabricated by dipping imaging carry material into fluid mixture of the top layer during fabricating the top layer. The first surface area and the second surface area of the top layer have different affinities for ink and/or ink-repellent fluid. The method of fabricating the printing member may comprise providing a substrate, providing an imaged transfer film, coating the substrate or the image transfer film with a liquid formulation; laminating the image transfer film with the substrate over the liquid formulation while dipping the image carry material into the liquid formulation, curing the liquid formulation into a solid layer, and releasing the image transfer film and revealing the two types of surface areas.



**WO 2004/110758 A2**

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
23 December 2004 (23.12.2004)

PCT

(10) International Publication Number  
**WO 2004/110758 A3**

(51) International Patent Classification<sup>7</sup>: **B41C 1/10**

(21) International Application Number:  
PCT/IL2004/000519

(22) International Filing Date: 16 June 2004 (16.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/479,157 18 June 2003 (18.06.2003) US

(71) Applicant (for all designated States except US): **VIM TECHNOLOGIES LTD.** [IL/IL]; Kibbutz Hanita, 22885 (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BIEBER, Avigdor** [IL/IL]; 59 Ahad Ha'am Street, 43210 Ra'anana (IL). **KARP, Michael K.** [IL/IL]; 5 Winberger, 49742 Petah Tikva (IL). **SAVION, Zeev** [IL/IL]; Kibbutz Hanita, 22885 (IL).

(74) Agents: **EITAN, PEARL, LATZER & CO-HEN-ZEDEK** et al.; 7 Shenkar Street, 2 Gav Yam Center, 7 Shenkar Street, P.O. Box 12688, 46725 Herzlia (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

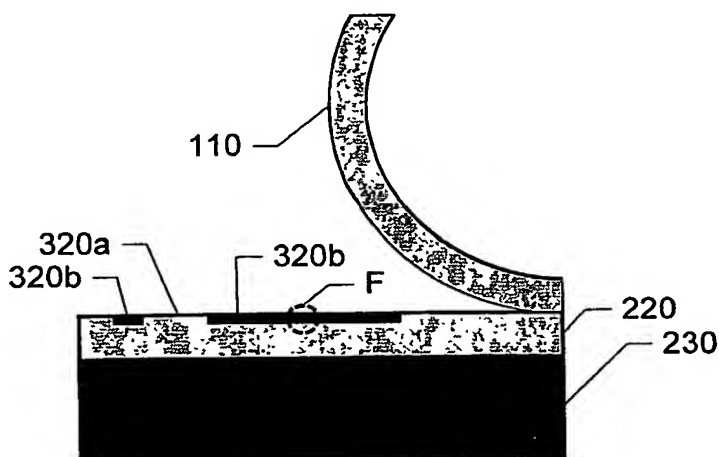
**Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:  
31 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A PRINTING MEMBER HAVING A TRANSFERRED IMAGE AND A METHOD FOR FABRICATING IT



revealing the two types of surface areas (320a, 320b).

(57) Abstract: A lithographic printing member (300) comprises a solid substrate (230) over the substrate, wherein the top layer comprises a first area (320b) having an affinity for ink and a second area (320a) having an affinity for an ink repelling fluid. The two types of surface areas are fabricated by dipping imaging carry material (320b) into a fluid mixture of the top layer during fabricating of the top layer. The method of fabricating the printing member (300) may comprise providing a substrate (230), providing an image transfer film (110), coating the substrate or the image transfer film with a liquid formulation; laminating the image transfer film (110) with the substrate (230) over the liquid formulation while dipping the image carry material (320b) into the liquid formulation, curing the liquid formulation into a solid layer (220), and releasing the image transfer film (110) and